DEPARTMENT OF OCEANOGRAPHY
UNIVERSITY OF WASHINGTON

Technical Report No. 24

PHYSICAL AND CHEMICAL DATA
PUGET SOUND AND APPROACHES
March - August 1952

Office of Naval Research
Contract N8onr-520/III
Project NR 083 012
Contract Nonr-477(01)
Project NR 083 072

Reference 54-8
February 1954

SEATTLE 5, WASHINGTON

UNIVERSITY OF WASHINGTON DEPARTMENT OF OCEANOGRAPHY
(Formerly Oceanographic Laboratories)
Seattle, Washington

PHYSICAL AND CHEMICAL DATA
PUGET SOUND AND APPROACHES
March - August 1952

by

Clifford A. Barnes and Eugene E. Collias

Technical Report No. 24

Office of Naval Research
Contract N8onr-520/III
Project NR 083 012
Contract Nonr-477(01)
Project NR 083 072

Reference 54-8
February 1954

Richard H. Fleming
Executive Officer

INTRODUCTION

This report contains inshore data collected from March through August 1952 by University of Washington personnel aboard the Department of Oceanography research vessel BROWN BEAR and the School of Fisheries research vessel ONCORHYNCHUS. Station location charts are presented before the data for each cruise (see pages 1, 5, 9, 18, 35 and 39. BROWN BEAR Cruise No. 1 was partially carried out in offshore waters. Additional inshore data not contained in this report were obtained with the Salinity-Temperature-Depth Recorder (1) and various current meters.

Station Numbering System

All stations occupied by the BROWN BEAR are numbered consecutively, independent of their location. Stations occupied by the ONCORHYNCHUS are numbered consecutively in a second series prefixed by the letter A.

Sampling Bottles

Water samples were taken with Nansen bottles, enlarged modified $2\frac{1}{2}$-liter Knudsen bottles and Fjarlie bottles (2).

Determination of Properties

Deep-sea reversing thermometers were used to determine temperature. Copenhagen standard sea water was used exclusively as the

standard in the determination of salinity of the sea water. Dissolved oxygen was determined by the modified Winkler method described by Thompson and Robinson (3). Soluble phosphate, observed only on Cruise 8a, was determined by the method described by Thompson and Robinson (4). The depths reported for sub-surface observations were calculated from measured wire angle, unprotected reversing thermometer readings, and curves of wire length minus thermometric depth versus wire length (L-Z), as described by LaFond (5).

Data

The time at which the messenger was dropped on the first cast is listed for the +8 time zone. Positions are given to the nearest 0.1 minute. Depth in fathoms was obtained with the aid of a Navy NMC echo sounder aboard the BROWN BEAR and a Bendix Depth Finder Model DR-3 aboard the ONCORHYNCHUS. Weather is reported in the Navy bathythermograph weather code given in H. O. Publication No. 606-c, except in cases where the only weather phenomenon reported is the state of the sky. For the state of the sky the following symbols were used: b., clear sky; b.c., blue sky with detached clouds; c., sky mainly cloudy; and o., sky overcast. Wind velocity is reported in knots. Air temperature is reported in degrees Fahrenheit.

All data are actual observed values. The maximum depth of sampling was governed by the depth of water. All clearly questionable data have been excluded.

The presentation of these data in this form does not constitute publication. Subsequent, more rigorous analyses of these data may disclose errors which are not apparent at this time.

REFERENCES

(1) Jacobsen, A. W.
1948. An Instrument for Recording Continuously the Salinity, Temperature, and Depth of Sea Water. Trans. Amer. Inst. Elec. Engrs., 67:714-722.

(2) Fjarlie, R. L. I.
1953. A Seawater Sampling Bottle. Jour. Mar. Res., 12(1):21-30.

(3) Thompson, T. G. and R. J. Robinson
1939. Notes on the Determination of Dissolved Oxygen in Sea Water. Jour. Mar. Res., 2(1):1-8.

(4) Thompson, T. G. and R. J. Robinson
1948. The Determination of Phosphates in Sea Water. Jour. Mar. Res., 7(1):33-41.

(5) LaFond, E. C.
1951. Processing Oceanographic Data. U. S. Navy H. O. Publication No. 614, Washington, D. C.

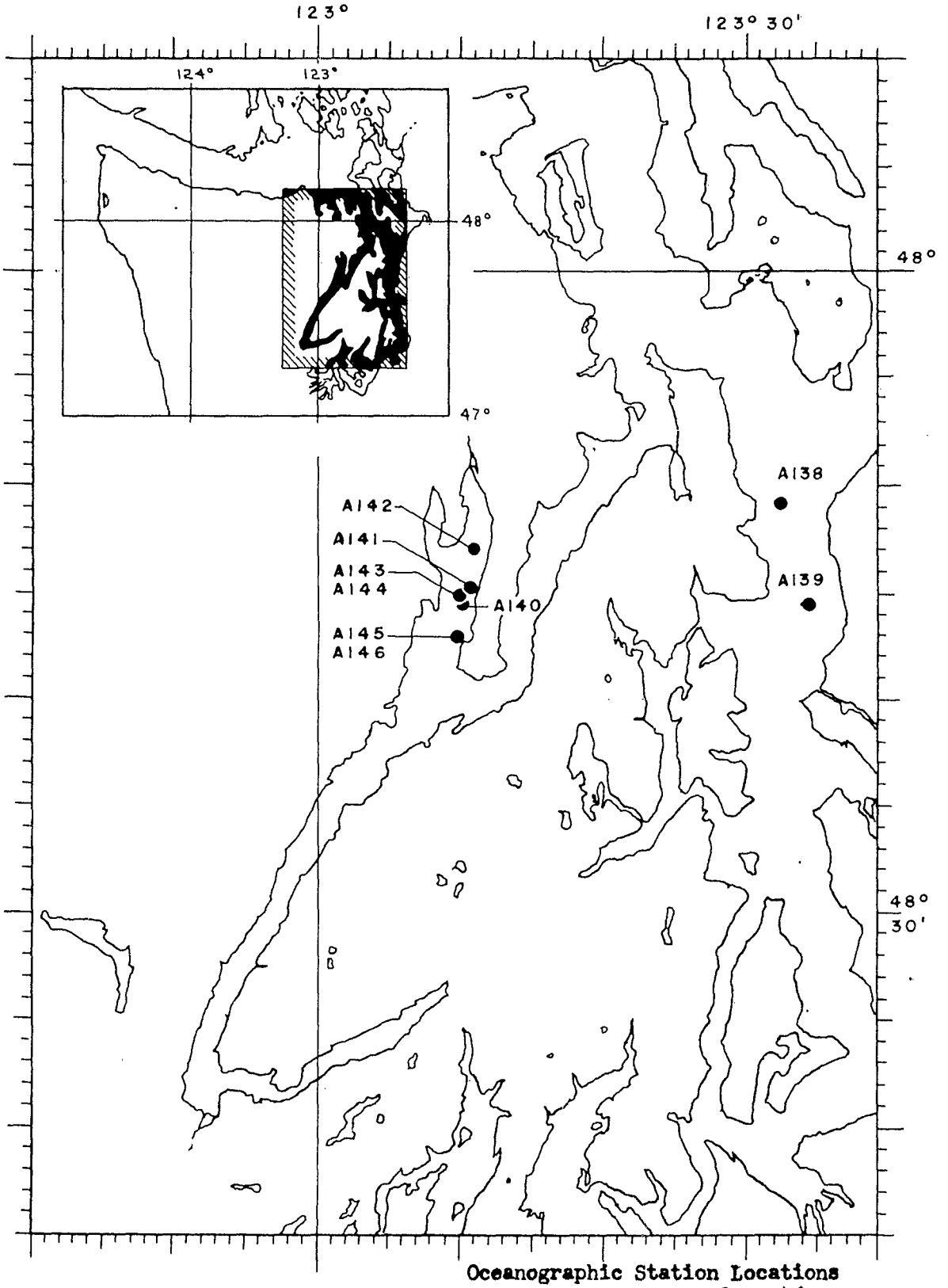
PERSONNEL

AT SEA

Andrew, Charles C.	Electronics Technician
Barlow, Dr. John P.	Research Associate
Barnes, Dr. Clifford A.	Associate Professor of Oceanography
Budinick, Samuel R.	Second Officer (BROWN BEAR)
Chow, Dr. T. J.	Research Associate
Collias, Eugene E.	Research Associate
Ethier, W. E.	First Officer (BROWN BEAR)
Fleming, Dr. Richard H.	Professor of Oceanography
Joyner, Marion E.	Laboratory Technician
Kojan, Eugene	Research Assistant
Lincoln, John H.	Research Associate
Lord, Gilbert M.	Laboratory Assistant
Oswald, Tom	Master (ONCORHYNCHUS)
Paquette, Dr. Robert G.	Research Oceanographer
Princehouse, Franklin W.	Master (BROWN BEAR)
Rattray, Dr. Maurice, Jr.	Assistant Professor of Oceanography
Russell, Lowell D.	Laboratory Helper
Seckel, Gunter R.	Research Assistant
Seiner, B.	Machinist
Vail, William R.	Second Officer (BROWN BEAR)
Waldichuk, Michael	Teaching Fellow
Wennekens, M. P.	Research Assistant

ASHORE

Barlow, Caroline F.	Research Assistant
Doyle, Donald R.	Draftsman
Duxbury, Alyn C.	Laboratory Helper
Griffin, Beverly M.	Student Assistant
Hanson, Donald S.	Laboratory Assistant
Jackson, Esther L.	Laboratory Technician
Kinison, Roberta F.	Secretary
Lewis, Edward P.	Laboratory Helper



Oceanographic Station Locations
Oncorhynchus A-138-A-146
24 July-7 Aug 1952

STA A-138 47° 49.2' N WEATHER b.c.
24 July 52 122° 27.8' W WIND N 1
1310 (+8) DEPTH 97 fm ---° F
Apple Cove Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.73	29.90	0.549
10	11.25	29.99	0.136
20	11.11	30.07	0.424
30	10.91	29.65	0.417
50	10.78	30.12	0.412
75	10.75	30.17	0.412
100	10.72	30.17	0.406
130	10.54	30.21	0.388
160	10.29	30.23	0.380

STA A-140 47° 44.4' N WEATHER b
4 Aug.52 122° 49.4' W WIND calm
1159 (+8) DEPTH 104 fm 64° F
Tabook Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	-----	26.47	0.514
5	-----	28.93	0.539
10	11.68	29.51	0.436
25	------	29.84	0.320
50	9.03	29.99	0.297
75	----	30.05	0.274
100	8.52	30.10	0.281
150	----	30.25	0.284

STA A-139 47° 45.5' N WEATHER b.
24 July 52 122° 25.5' W WIND N 10
1620 (+8) DEPTH 155 fm ---° F
Pt. Jefferson

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	13.13	29.45	-----
5	11.81	29.65	-----
10	11.78	29.67	-----
20	11.35	29.76	-----
30	10.95	29.88	-----
50	10.76	29.88	-----
100	10.74	30.03	-----
150	10.60	30.16	-----
200	10.28	30.23	-----
240	10.27	30.23	-----
270	10.26	30.23	-----

STA A-141 47° 45.1' N WEATHER c.
5 Aug 52 122° 49.0' W WIND SSW 6
0929 (+8) DEPTH 103 fm 63° F
Tabook Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	-----	26.71	0.510
5	15.56	27.92	0.630
10	-----	28.98	0.662
25	10.10	29.74	0.334
50	-----	29.97	0.309
75	8.84	30.03	0.282
100	----	30.08	0.270
150	8.04	30.23	0.298

STA A-142 47° 42.0' N WEATHER c.
5 Aug 52 122° 46.8' W WIND SSW 3
1015 (+8) DEPTH 88 fm 63° F
Bolton Peninsula, East of

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	-----	26.55	0.538
5	18.39	27.09	0.571
10	-----	28.86	0.724
25	10.00	29.87	0.334
50	-----	29.98	0.302
75	8.96	30.05	0.268
100	----	30.05	0.246
150	8.02	30.25	0.275

STA A-144 47° 44.8' N WEATHER b.c.
6 Aug 52 122° 49.8' W WIND S 8
1327 (+8) DEPTH 103 fm 72° F
Tabook Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	19.60	27.17	0.546
5	-----	28.87	0.663
10	11.54	29.43	0.470
25	-----	29.89	0.330
50	9.41	30.05	0.305
75	----	30.08	0.286
100	----	30.09	0.268
150	----	30.25	0.299

STA A-143 47° 44.9' N WEATHER b.c.
6 Aug 52 122° 49.8' W WIND SW 3
1016 (+8) DEPTH 103 fm ---° F
Tabook Pt.

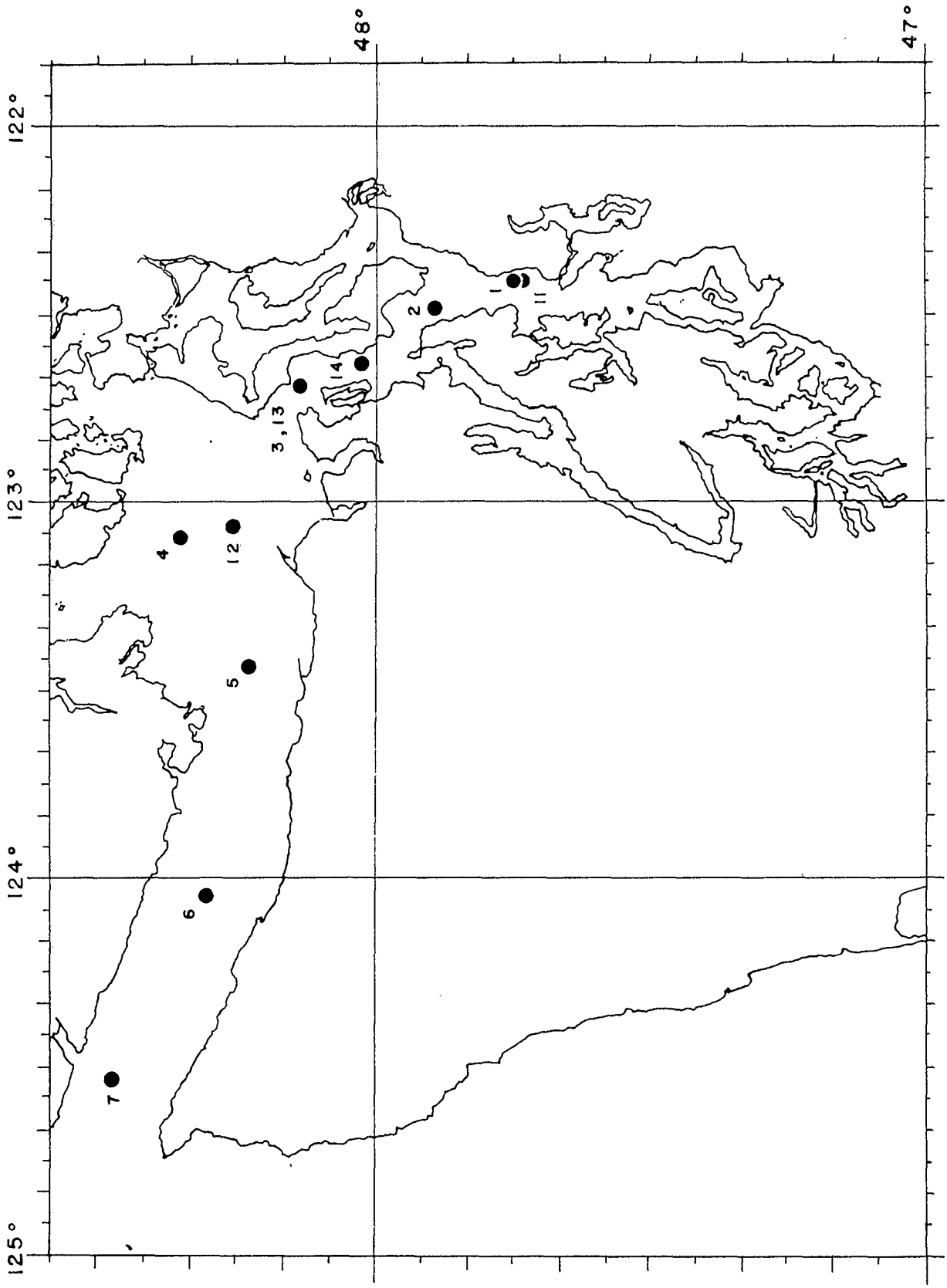
Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	-----	27.45	0.551
5	15.34	28.76	0.630
10	-----	29.21	0.457
25	9.99	29.86	0.323
50	----	30.00	0.292
75	9.12	30.07	0.288
100	----	30.05	0.265
150	8.05	30.24	0.284

STA A-145 47° 42.9' N WEATHER b.c.
7 Aug 52 122° 50.1' W WIND SW 6
0919 (+8) DEPTH --- fm ---° F
Zelatched Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	-----	27.01	0.596
5	15.86	27.88	0.615
10	12.03	29.35	0.443
25	-----	29.71	0.343
50	9.46	30.06	0.314
75	----	30.09	0.295
100	8.42	30.13	0.181
150	----	30.26	0.290

STA A-146	47° 42.9' N	WEATHER b.c.
7 Aug 52	122° 50.1' W	WIND SW 4
1248 (+8)	DEPTH --- fm	--- ° F
Zelatched Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	-----	26.91	0.613
5	15.08	28.06	0.610
10	11.98	29.38	0.435
25	-----	29.88	0.337
50	9.35	30.05	0.303
75	----	30.07	0.288
100	7.88	30.10	0.274
150	----	30.23	0.289



Oceanographic Station Locations
Brown Bear Cruises 1 and 2
11-13 March and 31 March-2 April 1952

FORM UW-OL-CH-4

STA 1 47° 45.4' N WEATHER c.
11 Mar 52 122° 24.8' W WIND S 19
1255 (+8) DEPTH 157 fm --° F
Pt. Jefferson

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.45	29.25	-----
5	7.45	29.26	-----
10	7.41	29.49	-----
19	7.40	29.52	-----
29	7.37	29.56	-----
48	7.34	29.58	-----
73	7.39	29.67	-----
97	7.33	29.73	-----
96	7.27	29.79	-----
144	7.33	29.81	-----
192	7.35	29.93	-----
240	7.35	29.94	-----
264	7.35	-----	-----

STA 3 48° 08.1' N WEATHER --
12 Mar 52 122° 41.2' W WIND SSW 5
0720 (+8) DEPTH 60 fm --° F
Port Townsend

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.36	30.73	0.419
5	7.38	30.74	0.508
9	7.38	30.75	0.498
17	7.37	30.77	0.430
25	7.34	30.82	0.492
42	7.34	30.86	0.481
62	7.46	31.15	0.475
79	7.42	31.15	0.483

STA 2 47° 53.9' N WEATHER --
11 Mar 52 122° 28.6' W WIND S 20
1700 (+8) DEPTH 108 fm --° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.37	29.66	0.535
5	7.39	29.67	0.513
10	7.37	29.68	0.527
20	7.36	29.68	0.483
30	7.31	29.69	0.465
50	7.35	29.72	0.503
73	7.37	29.74	-----
75	7.40	29.74	0.490
100	7.36	29.76	0.417
112	7.40	29.76	0.335
138	7.36	29.80	0.348

STA 4 48° 21.2' N WEATHER --
12 Mar 52 123° 05.7' W WIND S 4
1112 (+8) DEPTH 77 fm --° F
Hein Bank

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.28	30.53	0.412
5	7.25	30.69	0.466
10	7.36	30.88	0.430
20	7.25	30.97	0.492
30	7.24	31.02	0.502
50	7.23	-----	0.478
75	7.25	31.18	0.458
100	7.39	31.49	0.478
135	7.46	32.50	0.436

STA 5	48° 13.6' N	WEATHER --
12 Mar 52	123° 26.0' W	WIND W 6
1400 (+8)	DEPTH 74 fm	--° F
Ediz Hook		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.47	30.82	0.527
5	7.30	30.84	-----
10	7.29	30.86	0.515
20	7.28	31.00	0.497
30	7.30	31.29	0.493
50	7.43	31.73	0.503
75	7.56	32.01	0.443
100	7.70	32.65	-----
115	7.70	33.03	0.397

STA 7	48° 28.5' N	WEATHER --
13 Mar 52	124° 32.0' W	WIND SE 14
0830 (+8)	DEPTH 123 fm	--° F
Neah Bay		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.46	31.24	0.510
5	7.50	31.25	-----
10	7.51	31.29	0.542
20	7.37	31.41	0.533
30	7.38	31.56	0.426
50	7.49	31.85	0.380
75	7.96	32.35	-----
100	7.89	33.21	0.327
134	7.83	33.30	0.320
173	7.04	33.62	0.288
190	6.94	33.78	0.222

STA 6	48° 17.9' N	WEATHER --
12 Mar 52	124° 02.5' W	WIND SW 8
1832 (+8)	DEPTH 105 fm	--° F
Pillar Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.44	31.22	0.478
5	7.47	31.22	0.529
10	7.42	31.24	0.548
20	7.38	31.32	0.497
30	7.35	31.49	0.496
50	7.50	31.82	0.452
75	7.70	32.20	0.427
100	7.62	33.23	0.290
150	7.29	33.69	0.205
180	7.24	33.73	0.229

STA 11	47° 45.0' N	WEATHER b.
31 Mar 52	122° 25.3' W	WIND SE 12
2330 (+8)	DEPTH 155 fm	43° F
Pt. Jefferson		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.42	29.62	0.483
5	7.43	29.63	0.452
10	7.44	29.63	0.472
20	7.46	29.67	0.433
30	7.48	29.73	0.479
50	7.50	29.82	-----
75	7.51	29.86	-----
100	7.55	29.93	0.514
148	7.58	29.95	0.524
198	7.53	29.99	0.528
247	7.56	29.99	0.505

STA 13	48° 08.6' N	WEATHER 62
2 Apr 52	122° 41.2' W	WIND SE 36
0235 (+8)	DEPTH 32 fm	46° F
Port Townsend		

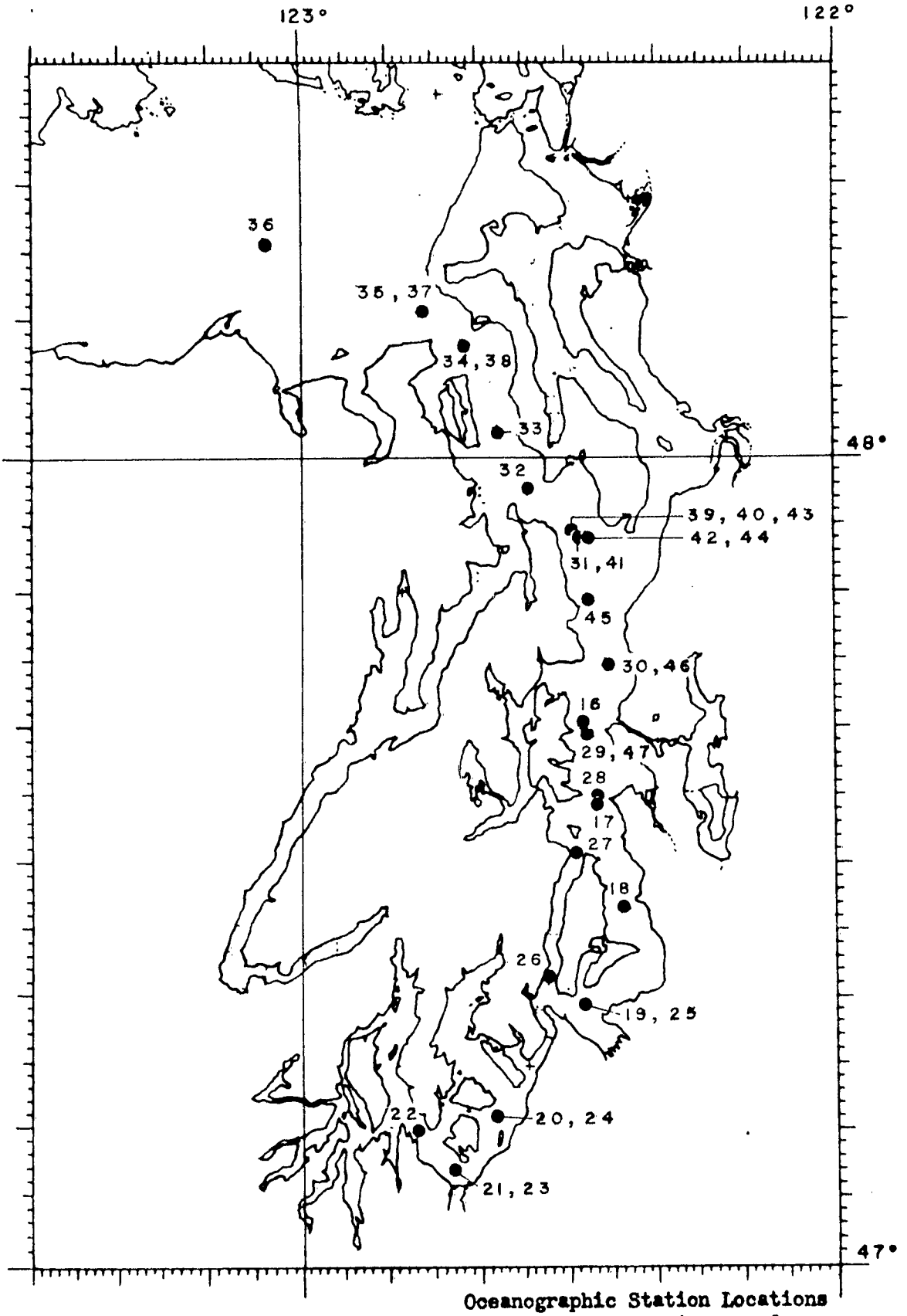
Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.47	30.66	0.580
10	7.47	30.68	0.462
30	7.47	30.86	0.465
55	7.49	30.86	0.520

STA 12	48° 15.8' N	WEATHER b.
1 Apr 52	123° 03.8' W	WIND ----
2300 (+8)	DEPTH --- fm	--° F
New Dungeness, NE		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.51	30.86	0.480
5	7.51	30.86	0.480
10	7.51	30.86	0.486
20	7.51	30.94	0.475
29	7.42	31.05	0.472
49	7.43	31.38	0.459
73	7.44	31.48	0.450
97	7.44	31.81	-----
156	7.44	32.58	0.357

STA 14	48° 01.4' N	WEATHER b.
2 Apr 52	122° 37.0' W	WIND SE 28
0440 (+8)	DEPTH 66 fm	45° F
Bush Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.48	29.68	0.502
5	7.50	29.68	0.501
9	7.49	29.70	0.553
18	7.48	29.70	0.534
27	7.47	29.75	0.532
46	7.46	29.96	0.498
68	7.48	30.52	0.476
91	7.50	30.81	-----



Oceanographic Station Locations
Brown Bear Cruise No. 3
16-19 April 1952

FORM UW-OL-CH-3

STA 16	47° 40.5' N	WEATHER 10
16 Apr 52	122° 28.5' W	WIND calm
1154 (+8)	DEPTH 125 fm	52° F
West Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.46	28.95	0.571
5	8.06	29.42	0.563
10	7.95	29.51	0.547
20	7.82	29.56	0.544
30	7.75	29.63	0.540
50	7.67	29.81	0.531
75	7.67	29.92	0.522
100	7.67	29.96	0.525
150	7.68	29.99	0.512
180	7.58	30.05	0.514
210	7.56	30.05	0.512

STA 17	47° 34.5' N	WEATHER 10
16 Apr 52	122° 26.5' W	WIND S 8
1416 (+8)	DEPTH 135 fm	54° F
Alki Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.27	29.43	0.552
5	8.22	29.43	0.561
10	8.09	29.49	0.559
20	7.96	29.51	0.535
30	7.90	29.52	0.546
50	7.89	29.54	0.541
75	7.67	29.79	-----
100	7.63	29.96	-----
150	7.64	29.97	0.506
200	7.56	30.01	-----
230	7.53	30.05	0.516

STA 18	47° 26.5' N	WEATHER 10
16 Apr 52	122° 23.9' W	WIND S 9
1639 (+8)	DEPTH 130 fm	61° F
Pully Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	----	29.05	0.578
5	8.45	29.14	-----
10	8.34	29.27	0.569
20	8.02	29.42	0.557
30	7.99	29.43	0.550
50	7.73	29.65	0.535
75	7.61	29.85	0.519
100	7.56	29.97	0.513
150	7.59	30.05	0.505
200	7.52	30.07	-----
220	7.51	-----	-----

STA 19	47° 19.1' N	WEATHER 10
16 Apr 52	122° 28.4' W	WIND W 9
1841 (+8)	DEPTH 97 fm	58° F
Brown Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.02	28.21	-----
5	8.41	29.05	-----
10	8.08	29.33	-----
20	7.91	29.43	-----
30	7.79	29.51	-----
50	7.65	29.62	-----
75	7.56	29.83	-----
100	7.55	29.95	-----
130	7.57	30.01	-----
160	7.51	30.03	-----

STA 20	47° 11.6' N	WEATHER b.
16 Apr 52	122° 38.0' W	WIND W 7
2115 (+8)	DEPTH 91 fm	56° F
Gordon Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.66	28.51	-----
5	8.59	28.98	-----
10	8.21	29.11	-----
20	8.13	29.20	-----
30	8.09	29.22	-----
50	8.10	29.25	-----
75	8.07	29.29	-----
100	7.99	29.34	-----
125	8.00	29.36	-----
150	7.97	29.38	-----

STA 22	47° 10.0' N	WEATHER b.
16 Apr 52	122° 47.2' W	WIND W 3
2331 (+8)	DEPTH 49 fm	54° F
Devil's Head		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.86	28.82	-----
5	8.65	28.84	-----
10	8.43	28.93	-----
20	8.18	29.00	-----
30	8.19	29.06	-----
50	8.15	29.08	-----
80	8.05	29.22	-----

STA 21	47° 07.2' N	WEATHER b.
16 Apr 52	122° 42.5' W	WIND W 8
2225 (+8)	DEPTH 35 fm	52° F
Nisqually Reach		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.12	29.19	-----
5	8.08	29.21	-----
10	8.02	29.23	-----
20	7.99	29.30	-----
30	7.96	29.35	-----
40	7.96	29.35	-----
60	7.95	29.35	-----

STA 23	47° 12.6' N	WEATHER b.
17 Apr 52	122° 42.4' W	WIND W 3
0141 (+8)	DEPTH 34 fm	46° F
Nisqually Reach		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.56	25.34	-----
5	8.18	28.97	-----
10	8.14	29.15	-----
20	8.09	29.18	-----
23	8.07	29.23	-----
33	8.07	29.23	-----
53	7.96	29.36	-----

STA 24	47° 08.2' N	WEATHER b.
17 Apr 52	122° 38.3' W	WIND W 3
0302 (+8)	DEPTH 91 fm	46° F
Gordon Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.20	28.82	0.601
5	8.24	28.93	0.597
10	8.25	28.99	0.591
20	8.24	29.18	0.582
30	8.23	29.20	0.585
50	8.08	29.24	0.578
75	8.03	29.30	0.568
100	8.00	29.34	0.561
125	7.98	29.42	0.556
150	7.91	29.43	0.561

STA 26	47° 21.2' N	WEATHER b.
17 Apr 52	122° 32.5' W	WIND SE 1
0700 (+8)	DEPTH 54 fm	58° F
Spring Beach		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.02	29.31	-----
5	8.03	29.34	-----
10	7.98	29.41	-----
20	7.89	29.49	-----
30	7.87	29.50	-----
50	7.85	29.51	-----
70	7.82	29.56	-----
90	7.80	29.60	-----

STA 25	47° 19.2' N	WEATHER b.
17 Apr 52	122° 27.5' W	WIND S 3
0553 (+8)	DEPTH 97 fm	47° F
Brown Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.88	26.54	-----
5	8.78	28.95	-----
10	8.12	29.23	-----
20	7.90	29.44	-----
30	7.76	29.51	-----
50	7.63	29.77	-----
75	7.55	29.88	-----
100	7.56	29.97	-----
130	7.56	29.98	-----
160	7.53	30.00	-----

STA 27	47° 30.5' N	WEATHER b.
17 Apr 52	122° 29.2' W	WIND SW 2
0838 (+8)	DEPTH 60 fm	59° F
Pt. Vashon		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.11	29.39	-----
5	8.01	29.39	-----
10	7.99	29.40	-----
20	7.95	29.40	-----
30	7.94	29.43	-----
50	7.90	29.48	-----
75	7.82	29.50	-----
95	7.78	29.61	-----

STA 28	47° 34.9' N	WEATHER b.
17 Apr 52	122° 26.8' W	WIND SE 6
1007 (+8)	DEPTH 135 fm	53° F
Alki Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.51	29.42	-----
5	8.26	29.43	-----
10	8.13	29.44	-----
20	7.96	29.52	-----
30	7.89	29.54	-----
50	7.68	29.75	-----
75	7.65	29.87	-----
100	7.66	29.96	-----
150	7.64	29.98	-----
200	7.55	30.03	-----
240	7.56	30.04	-----

STA 29	47° 39.6' N	WEATHER b.
17 Apr 52	122° 28.0' W	WIND SE 6
1123 (+8)	DEPTH 127 fm	56° F
West Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.67	28.40	0.566
5	8.08	29.49	0.546
10	7.92	29.52	0.541
20	7.88	29.56	0.537
30	7.85	29.59	0.523
50	7.71	29.70	0.521
75	7.68	29.85	0.513
99	7.67	29.94	0.507
149	7.79	29.99	0.507
188	7.74	29.92	0.512
223	7.73	30.00	0.514

STA 30	47° 44.4' N	WEATHER b.
17 Apr 52	122° 25.0' W	WIND NE 2
1239 (+8)	DEPTH 152 fm	61° F
Pt. Jefferson		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.59	26.38	0.573
10	8.03	29.43	0.543
20	7.93	29.50	0.535
30	7.84	29.56	0.527
50	7.79	29.65	0.524
75	7.85	29.97	0.511
100	7.89	29.99	0.509
150	7.86	30.00	0.507
200	7.93	30.10	0.498
240	7.94	30.14	0.493
270	7.91	30.17	-----

STA 31	47° 49.3' N	WEATHER b.
17 Apr 52	122° 28.8' W	WIND SE 10
1430 (+8)	DEPTH 110 fm	60° F
Pt. No Point		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.69	27.09	0.850
5	8.51	28.77	0.656
10	8.20	29.46	0.550
20	7.86	29.70	0.534
30	7.76	29.73	0.524
50	7.74	29.77	0.516
75	7.84	29.93	0.515
100	7.90	29.98	0.518
140	8.00	30.09	0.515
180	7.89	30.63	0.493

STA 32	47° 57.4' N	WEATHER b.
17 Apr 52	122° 34.4' W	WIND SE 7
1531 (+8)	DEPTH 60 fm	56° F
Double Bluff		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.40	26.40	0.947
5	8.22	28.95	0.603
10	8.01	29.41	0.529
20	7.88	29.75	0.523
30	7.80	29.76	0.526
49	7.87	29.88	0.526
74	7.94	30.12	0.516
98	7.95	30.32	0.508

STA 34	48° 08.3' N	WEATHER b.
17 Apr 52	122° 41.3' W	WIND NW 16
1738 (+8)	DEPTH 62 fm	54° F
Port Townsend		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.32	29.69	0.575
5	8.32	29.72	0.579
10	8.33	29.70	0.572
20	8.31	29.75	0.547
30	8.24	29.79	0.566
50	7.99	30.14	0.542
80	7.91	30.62	0.506

STA 33	48° 01.6' N	WEATHER b.
17 Apr 52	122° 37.9' W	WIND SE 6
1619 (+8)	DEPTH 59 fm	64° F
Bush Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.87	27.77	0.804
5	8.25	29.04	0.601
10	7.95	29.61	0.538
20	7.92	29.70	0.542
30	7.98	29.88	0.537
49	7.97	29.99	0.529
74	7.99	30.25	0.521
98	7.86	30.81	0.491

STA 35	48° 10.4' N	WEATHER b.
17 Apr 52	122° 46.6' W	WIND SW 12
1849 (+8)	DEPTH 42 fm	51° F
Middle Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.18	29.99	0.537
5	8.19	29.99	0.456
10	8.19	30.00	0.396
20	7.96	30.52	0.406
30	7.85	30.84	-----
45	7.77	31.17	-----

STA 36	48° 15.7' N	WEATHER b.
17 Apr 52	123° 03.2' W	WIND W 12
2212 (+8)	DEPTH 97 fm	49° F
New Dungeness		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.91	30.73	0.428
5	7.93	30.75	0.506
10	7.91	30.75	0.514
20	7.89	30.79	0.508
30	7.68	31.32	0.453
49	7.54	31.90	0.402
74	7.46	32.22	0.365
98	7.30	32.60	0.264
123	7.26	32.84	0.284
157	7.13	34.23	0.360

STA 38	48° 08.0' N	WEATHER b.
18 Apr 52	122° 41.0' W	WIND W 8
0152 (+8)	DEPTH 58 fm	48° F
Port Townsend		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	7.84	30.98	-----
5	7.84	30.99	-----
10	7.82	31.02	-----
20	7.77	31.13	-----
30	7.76	31.22	-----
50	7.61	31.43	-----
85	7.66	31.55	-----

STA 37	48° 10.6' N	WEATHER b.
18 Apr 52	122° 46.6' W	WIND W 4
0045 (+8)	DEPTH 37 fm	48° F
Middle Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.14	30.43	-----
5	8.15	30.41	-----
10	7.99	30.64	-----
20	7.90	30.86	-----
30	7.79	31.17	-----
50	7.53	31.87	-----

STA 39	47° 54.2' N	WEATHER b.
18 Apr 52	122° 29.6' W	WIND calm
0555 (+8)	DEPTH 112 fm	49° F
Pt. No Point		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.17	26.52	-----
5	8.54	28.75	-----
10	8.25	29.34	-----
20	8.04	29.45	-----
30	7.95	29.62	-----
50	7.83	29.73	-----
75	7.94	29.88	-----
100	7.95	29.99	-----
135	8.05	30.12	-----
175	8.01	30.12	-----

STA 40 47° 54.2' N WEATHER b.
18 Apr 52 122° 28.7' W WIND SE 6
1026 (+8) DEPTH 114 fm 55° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.65	24.92	-----
5	8.27	29.16	-----
10	8.22	29.38	-----
19	8.07	29.49	-----
29	7.82	29.65	-----
48	7.81	29.79	-----
72	7.83	29.88	-----
96	7.86	29.91	-----
143	8.04	30.13	-----
182	7.97	30.29	-----

STA 41 47° 53.8' N WEATHER b.
18 Apr 52 122° 28.2' W WIND S 24
1531 (+8) DEPTH 112 fm 64° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.47	28.08	-----
5	9.45	28.15	-----
10	8.58	28.86	-----
20	8.16	29.42	-----
30	7.83	29.67	-----
50	7.78	29.74	-----
74	7.97	29.94	-----
99	7.98	30.05	-----
130	7.97	30.08	-----
167	7.96	30.19	-----

STA 42 47° 53.9' N WEATHER b.
18 Apr 52 122° 27.8' W WIND SSE 26
1948 (+8) DEPTH 114 fm 55° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.91	28.83	-----
5	8.93	28.86	-----
10	8.88	29.89	-----
20	7.96	29.54	-----
30	7.83	29.70	-----
50	7.83	29.81	-----
74	7.86	29.85	-----
99	7.89	29.86	-----
130	7.95	29.96	-----
169	7.92	30.04	-----

STA 43 47° 54.0' N WEATHER b.
19 Apr 52 122° 28.5' W WIND SE 11
0040 (+8) DEPTH 114 fm 47° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.50	29.04	-----
5	8.53	29.03	-----
10	8.32	29.31	-----
20	8.17	29.58	-----
30	8.14	29.68	-----
49	8.20	29.88	-----
74	8.18	29.93	-----
98	8.04	30.10	-----
147	8.00	30.26	-----
186	7.94	30.36	-----

STA 44. 48° 54.2' N WEATHER b.
19 Apr 52 122° 27.6' W WIND SSE 14
0515 (+8) DEPTH 112 fm 45° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.37	29.31	-----
5	8.35	29.31	-----
10	8.31	29.34	-----
20	8.14	29.47	-----
30	7.92	29.66	-----
49	7.86	29.76	-----
74	7.97	29.84	-----
98	8.04	29.90	-----
135	8.03	30.11	-----
185	7.98	30.50	-----

STA 46 47° 44.2' N WEATHER b.
19 Apr 52 122° 25.8' W WIND SSE 6
0806 (+8) DEPTH 149 fm 46° F
Pt. Jefferson

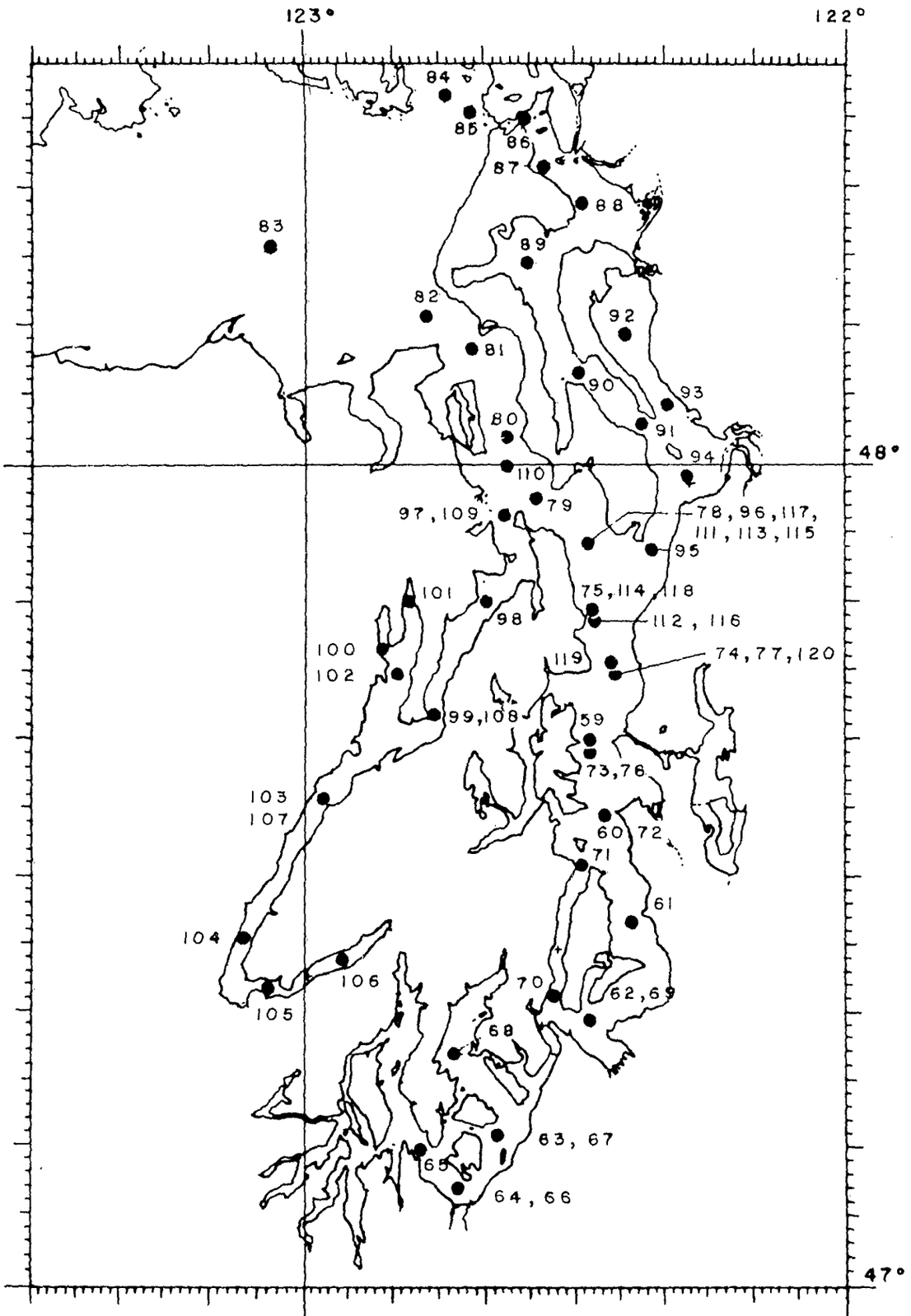
Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.23	28.96	0.562
5	8.11	29.37	0.553
10	8.05	29.48	0.558
20	7.97	29.51	0.535
30	7.95	29.54	0.520
50	7.75	29.62	0.517
75	7.74	29.76	0.502
100	7.82	29.96	0.503
150	7.88	29.98	0.522
200	7.94	30.26	0.506
250	7.95	30.26	0.529

STA 45 47° 49.3' N WEATHER b.
19 Apr 52 122° 27.3' W WIND NE 8
0648 (+8) DEPTH 100 fm 45° F
Apple Cove Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.19	29.53	-----
5	8.18	29.55	-----
10	8.15	29.56	-----
20	7.87	29.60	-----
30	7.98	29.72	-----
50	7.95	29.90	-----
75	7.94	29.97	-----
100	7.95	30.03	-----
130	7.98	30.08	-----
160	7.95	30.21	-----

STA 47 47° 39.7' N WEATHER b.
19 Apr 52 122° 28.0' W WIND S 6
0932 (+8) DEPTH 124 fm 46° F
West Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	8.34	28.19	-----
5	8.11	29.47	-----
10	8.05	29.50	-----
20	7.97	29.52	-----
30	7.85	29.60	-----
50	7.68	29.81	-----
75	7.74	29.92	-----
99	7.77	29.99	-----
149	7.91	30.07	-----
188	7.89	30.08	-----
207	7.88	30.10	-----



Oceanographic Station Locations
Brown Bear Cruise No. 6
28 May-6 June 1952

FORM UW-OL-CH-3

STA 59	47° 40.3' N	WEATHER c.
28 May 52	122° 28.1' W	WIND SSE 18
1029 (+8)	DEPTH 130 fm	57° F
West Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.02	28.00	0.786
5	11.96	27.92	0.620
10	10.52	28.86	0.756
20	9.37	29.48	0.470
30	9.27	29.53	0.462
50	8.92	29.70	0.370
74	8.90	29.95	0.505
99	8.89	30.01	0.521
148	8.62	30.11	0.450
177	8.58	30.15	0.432
217	8.49	30.18	0.434

STA 61	47° 26.4' N	WEATHER c.
28 May 52	122° 23.5' W	WIND SW 12
1429 (+8)	DEPTH 129 fm	57° F
Tully Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.90	29.03	0.761
5	10.87	29.05	0.757
10	10.77	29.05	0.723
20	9.55	29.37	0.585
30	9.40	29.43	0.576
50	9.16	29.57	0.555
75	8.76	29.82	0.531
99	8.52	30.00	0.501
149	8.43	30.09	0.512
178	8.41	30.13	0.501
198	8.35	30.14	0.489

STA 60	47° 34.1' N	WEATHER c.
28 May 52	122° 26.7' W	WIND S 19
1152 (+8)	DEPTH 132 fm	57° F
Alki Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.22	28.65	-----
5	11.22	28.67	0.758
10	10.65	28.85	0.712
20	9.09	29.27	0.622
30	9.84	29.32	0.567
50	9.49	29.45	0.594
75	8.98	29.73	0.539
100	8.70	30.03	0.513
149	8.52	30.09	0.506
178	8.47	30.16	0.500
218	8.41	30.16	0.484

STA 62	47° 19.3' N	WEATHER 61
28 May 52	122° 28.5' W	WIND SW 16
1631 (+8)	DEPTH 95 fm	58° F
Brown Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.86	28.81	0.779
5	10.78	28.80	0.791
10	10.59	28.94	0.733
20	9.53	29.39	0.589
30	9.28	29.52	0.563
50	8.91	29.63	0.539
74	8.77	29.80	0.597
98	8.56	29.94	0.578
128	8.47	30.08	0.566
157	8.35	30.11	0.491

STA 63	47° 01.7' N	WEATHER b.c.
28 May 52	122° 37.8' W	WIND SW 20
1942 (+8)	DEPTH 90 fm	54° F
Gordon Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.12	29.21	0.563
5	10.00	29.21	0.565
10	9.95	29.26	0.566
20	9.88	29.30	0.563
30	9.86	29.33	0.568
50	9.85	29.33	0.557
75	9.85	29.34	0.559
100	9.68	29.41	0.563
130	9.59	29.43	0.559
160	9.58	29.43	0.554

STA 65	47° 10.0' N	WEATHER b.
28 May 52	122° 47.3' W	WIND S 7
2213 (+8)	DEPTH 50 fm	50° F
Devil's Head		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.77	29.12	0.578
5	10.75	29.12	0.575
10	10.71	29.12	0.588
20	10.55	29.17	0.575
30	10.01	29.26	0.556
50	9.89	29.30	0.544
75	9.79	29.33	0.547

STA 64	47° 07.3' N	WEATHER c.
28 May 52	122° 42.8' W	WIND S 8
2102 (+8)	DEPTH 34 fm	52° F
Nisqually Reach		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.78	29.34	0.559
5	9.78	29.34	0.563
10	9.71	29.34	0.550
20	9.53	29.42	0.556
30	9.52	29.44	0.541
35	9.57	29.44	0.545
40	9.56	29.46	0.547
45	9.50	29.44	0.547

STA 66	47° 07.2' N	WEATHER b.
28 May 52	122° 42.3' W	WIND S 13
2311 (+8)	DEPTH 36 fm	50° F
Nisqually Reach		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.05	29.84	0.563
5	10.06	29.08	0.567
10	9.95	29.24	0.562
20	9.68	29.37	0.553
30	9.58	29.38	0.551
40	9.58	29.44	0.556
50	9.55	29.44	0.549

STA 67	47° 11.6' N	WEATHER b.
29 May 52	122° 38.5' W	WIND S 17
0035 (+8)	DEPTH 92 fm	50° F
Gordon Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.03	29.24	0.563
5	10.05	29.24	0.563
10	9.22	29.26	0.556
19	9.89	29.32	0.554
29	9.80	29.32	0.554
48	9.55	29.42	0.548
61	9.67	29.43	0.546
84	9.47	29.44	0.539
113	9.40	29.46	0.538
141	9.40	29.46	0.561

STA 68	47° 16.9' N	WEATHER b.
29 May 52	122° 42.8' W	WIND SSE 12
0200 (+8)	DEPTH 52 fm	50° F
Green Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.03	29.30	0.591
5	10.04	29.30	0.562
10	10.01	29.30	0.536
20	9.97	29.30	0.558
40	9.45	29.35	0.543
60	9.35	29.38	0.530
85	9.22	29.39	0.529

STA 69	47° 19.3' N	WEATHER b.
29 May 52	122° 27.9' W	WIND S 5
0521 (+8)	DEPTH 97 fm	51° F
Brown Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	-----	23.46	-----
1	10.68	25.07	0.656
5	10.44	28.98	0.680
10	9.85	29.23	0.596
20	9.51	29.38	0.565
30	9.46	29.43	0.549
50	9.07	29.57	0.489
74	8.71	29.84	0.502
99	8.63	29.98	0.479
129	8.52	30.07	0.465
158	8.38	30.11	0.473

STA 70	47° 21.3' N	WEATHER b.
29 May 52	122° 32.4' W	WIND S 4
0627 (+8)	DEPTH 55 fm	51° F
Spring Beach		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.56	29.45	0.565
5	9.54	29.46	0.558
10	9.41	29.52	0.552
20	9.42	29.53	0.542
30	9.39	29.56	0.541
49	9.30	29.59	0.535
74	9.21	29.64	0.529
98	9.02	29.71	0.518

STA 71	47° 30.4' N	WEATHER c.
29 May 52	122° 29.1' W	WIND S 1
0805 (+8)	DEPTH 60 fm	52° F
Pt. Vashon		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.91	29.29	0.601
5	9.86	29.30	0.598
10	9.82	29.30	0.591
20	9.79	29.32	0.585
30	9.56	29.43	0.557
50	9.43	29.47	0.546
75	9.37	29.52	0.538
100	9.28	29.53	0.540

STA 73	47° 39.0' N	WEATHER c.
29 May 52	122° 28.0' W	WIND S 1
1017 (+8)	DEPTH 127 fm	56° F
West Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.28	28.30	0.724
5	10.65	28.97	0.697
10	10.36	29.15	0.644
20	9.64	29.38	0.573
30	9.35	29.52	0.555
50	9.08	29.68	0.524
75	8.98	29.89	0.488
100	8.90	30.02	0.470
165	8.67	30.11	0.464
205	8.50	30.15	0.471

STA 72	47° 34.5' N	WEATHER c.
29 May 52	122° 26.9' W	WIND S 1
0914 (+8)	DEPTH 134 fm	54° F
Alki Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.40	29.10	0.557
5	10.22	29.17	0.651
10	10.09	29.21	0.626
20	10.20	29.21	0.626
30	9.81	29.34	0.595
50	9.14	29.32	0.508
75	8.84	29.89	0.492
100	8.77	30.00	0.425
150	8.59	30.11	0.390
180	8.40	30.13	0.467
230	8.44	30.15	0.457

STA 74	47° 44.6' N	WEATHER c.
29 May 52	122° 25.1' W	WIND S 1
1128 (+8)	DEPTH 152 fm	58° F
Pt. Jefferson		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	13.22	27.96	0.777
5	11.41	28.16	0.820
10	10.97	28.54	0.727
20	10.44	29.09	0.636
30	9.40	29.45	0.555
50	9.09	29.62	0.520
100	9.06	29.67	0.468
150	8.79	30.10	0.465
200	8.63	29.76	0.505
240	9.02	29.76	0.509
270	9.04	30.06	0.466

STA 75	47° 49.2' N	WEATHER b.
29 May 52	122° 27.7' W	WIND S 4
1252 (+8)	DEPTH 100 fm	56° F
Apple Cove Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.22	28.00	0.672
5	11.32	28.44	0.691
10	10.54	28.63	0.621
20	9.82	29.32	0.516
30	9.33	29.75	0.486
50	9.17	30.00	0.471
75	9.09	30.07	0.457
100	9.11	30.13	0.452
140	8.88	30.15	0.449
170	9.20	30.29	0.443

STA 77	47° 44.6' N	WEATHER c.
3 June 52	122° 25.1' W	WIND S 17
1055 (+8)	DEPTH 154 fm	57° F
Pt. Jefferson		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.88	25.61	0.730
5	12.87	25.79	0.742
10	10.40	28.95	0.621
19	9.46	29.48	0.553
29	9.45	29.48	0.548
48	9.02	29.81	0.499
97	9.10	30.16	0.496
145	9.15	30.20	0.456
188	9.21	30.35	0.445
226	9.29	30.34	0.446
254	9.21	30.32	0.477

STA 76	47° 39.7' N	WEATHER c.
3 June 52	122° 27.9' W	WIND S 20
0933 (+8)	DEPTH 125 fm	57° F
West Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	13.08	25.65	0.753
5	13.08	25.79	0.756
14	10.68	29.10	0.614
24	9.56	29.46	0.550
42	9.07	29.73	0.512
76	8.95	29.88	0.480
89	9.02	30.02	0.468
136	8.87	30.14	0.456
165	8.80	30.14	0.454
202	8.74	-----	0.454

STA 78	47° 54.3' N	WEATHER c.
3 June 52	122° 28.2' W	WIND S 11
1340 (+8)	DEPTH 112 fm	58° F
Pt. No Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.05	27.57	-----
5	10.98	27.72	0.577
9	10.54	28.16	0.582
19	9.40	29.52	0.536
28	9.15	29.73	0.513
47	9.24	29.86	0.501
70	9.21	30.01	0.482
94	9.23	30.17	0.475
95	9.20	30.08	0.465
145	9.26	30.34	0.452

STA 79	47° 57.3' N	WEATHER c.
3 June 52	122° 34.5' W	WIND S 11
1457 (+8)	DEPTH 58 fm	58° F
Double Bluff		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.93	27.18	0.624
5	10.52	28.56	0.619
10	9.96	29.47	0.547
19	9.91	29.65	0.546
29	9.74	29.76	0.541
48	9.60	30.14	0.503
73	9.20	30.59	0.464
92	9.22	30.60	0.460

STA 81	48° 08.5' N	WEATHER c.
3 June 52	122° 41.5' W	WIND NNW 3
1746 (+8)	DEPTH 59 fm	52° F
Port Townsend		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.06	29.40	0.559
5	9.85	29.54	0.540
15	9.66	29.99	0.530
25	9.56	30.19	0.502
44	9.44	30.39	0.498
68	9.26	30.61	0.467
93	8.57	31.56	0.397

STA 80	48° 01.5' N	WEATHER c.
3 June 52	122° 37.7' W	WIND NNW 10
1610 (+8)	DEPTH 59 fm	53° F
Bush Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.34	28.90	0.599
5	10.42	28.87	0.615
10	10.34	28.90	-----
20	9.92	29.41	0.546
30	9.74	29.67	0.527
50	9.45	30.30	0.476
75	9.24	30.72	0.472
100	9.19	30.75	0.458

STA 82	48° 10.7' N	WEATHER 0
3 June 52	122° 46.6' W	WIND NNW 1
1832 (+8)	DEPTH 29 fm	52° F
Middle Point		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.72	28.96	0.504
5	9.48	30.39	0.498
10	9.42	30.55	0.496
20	9.36	30.77	0.495
30	9.15	30.82	0.464
49	8.46	31.72	0.381

STA 83 48° 15.6' N WEATHER 10
3 June 52 123° 03.8' W WIND NW 1
2050 (+8) DEPTH 99 fm 51° F
New Dungeness, N. E.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.4	29.85	0.653
5	9.81	29.87	0.584
10	9.88	30.09	0.570
20	9.66	30.21	0.529
30	9.26	30.53	0.481
49	8.32	31.75	0.377
74	7.94	32.30	0.329
98	7.37	33.02	0.263
128	7.15	33.30	0.233
157	7.10	33.33	0.236

STA 85 48° 25.1' N WEATHER 0
4 June 52 122° 41.2' W WIND SE 16
0622 (+8) DEPTH 43 fm 56° F
Deception Island

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.75	27.07	-----
4	9.72	27.65	-----
7	9.66	28.30	-----
14	9.76	30.19	-----
21	9.07	30.54	-----
35	9.14	31.23	-----
57	8.61	31.27	-----

STA 84 48° 26.6' N WEATHER c.
4 June 52 122° 44.3' W WIND E 15
0030 (+8) DEPTH 45 fm 55° F
Blossom Reef, N.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.81	29.44	0.549
5	9.68	29.59	0.534
10	9.46	29.92	0.501
20	9.33	30.07	0.488
30	9.26	30.22	0.476
50	8.87	30.81	0.439
75	8.28	31.75	0.368

STA 86 48° 25.0' N WEATHER c.
4 June 52 122° 35.9' W WIND SE 24
0718 (+8) DEPTH 20 fm 60° F
Dewey

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.95	19.92	0.575
5	10.55	22.10	0.573
10	9.66	26.65	0.499
20	9.52	27.50	0.499
30	9.51	27.57	0.498

STA 87	48° 21.1' N	WEATHER c.
4 June 52	122° 33.1' W	WIND SE 24
0801 (+8)	DEPTH 8 fm	60° F
Goat Island, W.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.93	11.54	0.604
5	11.20	16.35	0.582
10	9.66	26.26	0.497

STA 89	48° 14.3' N	WEATHER c.
4 June 52	122° 35.2' W	WIND SSE 24
0949 (+8)	DEPTH 27 fm	60° F
Snatelum Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.87	26.46	0.655
5	10.90	26.48	0.664
10	10.85	26.50	0.652
19	8.52	27.66	0.429
29	8.18	29.24	0.416
38	8.13	29.82	0.386

STA 88	48° 18.5' N	WEATHER c.
4 June 52	122° 29.5' W	WIND SE 22
0843 (+8)	DEPTH 16 fm	60° F
Strawberry Pt., N.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.46	10.69	0.601
5	11.76	11.94	0.585
10	9.51	26.01	0.481
20	8.74	28.13	0.436

STA 90	48° 06.6' N	WEATHER c.
4 June 52	122° 29.7' W	WIND SSE 10
1138 (+8)	DEPTH 81 fm	64° F
East Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.02	27.30	0.634
5	11.06	27.30	0.630
10	10.65	27.56	0.615
20	9.02	29.26	0.493
30	8.76	29.50	0.477
50	8.58	29.57	0.456
75	8.02	29.66	0.412
100	7.85	29.75	0.381
130	7.97	29.83	0.403

STA 91	48° 02.9' N	WEATHER c.
4 June 52	122° 22.2' W	WIND SE 20
1316 (+8)	DEPTH 98 fm	66° F
Camino Head, W.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.37	27.47	0.626
5	10.99	28.08	0.643
10	10.80	28.11	0.638
20	9.90	28.70	0.577
30	8.94	29.53	0.478
50	8.77	29.57	0.399
75	7.97	29.73	0.410
100	7.92	29.80	0.421
150	8.06	29.93	0.422

STA 93	48° 04.8' N	WEATHER c.
4 June 52	122° 20.0' W	WIND NNW 3
1624 (+8)	DEPTH 66 fm	60° F
Camino Head, E.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.28	24.59	0.684
5	11.76	26.92	0.669
10	11.40	27.41	0.645
20	10.83	27.70	0.585
30	9.23	29.34	0.484
50	8.18	29.49	0.441
80	7.90	29.74	0.352
110	7.89	29.99	0.253

STA 92	48° 08.8' N	WEATHER c.
4 June 52	122° 24.8' W	WIND NNW 4
1453 (+8)	DEPTH 58 fm	61° F
Port Susan, Head		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	13.05	20.95	0.623
5	12.72	21.47	0.656
10	11.95	24.56	0.685
20	9.01	29.26	0.483
30	8.45	29.35	0.436
50	8.12	29.52	0.407
80	7.83	29.76	0.333

STA 94	47° 59.3' N	WEATHER c.
4 June 52	122° 17.2' W	WIND NNW 6
1754 (+8)	DEPTH 74 fm	58° F
Port Gardner		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.80	27.24	0.687
5	11.72	27.42	0.673
10	11.21	27.97	0.638
20	10.13	28.96	0.575
30	8.97	29.60	0.435
50	8.61	29.63	0.384
80	8.13	29.84	0.365
120	8.28	30.06	0.245

STA 95 47° 53.7' N WEATHER c.
4 June 52 122° 21.2' W WIND NNW 6
1805 (+8) DEPTH 119 fm 58° F
Possession Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.00	27.59	0.664
5	12.00	27.60	0.676
10	11.34	27.95	0.654
20	9.68	29.32	0.556
30	9.16	29.62	0.514
50	8.61	29.71	0.422
75	8.10	29.80	0.410
100	8.25	29.95	0.401
150	8.75	30.17	0.429
220	9.07	30.31	0.441

STA 97 47° 56.0' N WEATHER c.
4 June 52 122° 38.1' W WIND NNW 8
2225 (+8) DEPTH 68 fm 53° F
Tala Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.68	27.89	0.668
5	11.84	28.69	0.626
10	11.68	28.74	0.626
20	10.27	29.52	0.542
30	9.85	29.79	0.514
50	9.45	30.24	0.475
75	9.26	30.51	0.444
100	9.25	30.59	0.453

STA 96 47° 53.7' N WEATHER c.
4 June 52 122° 29.6' W WIND NNW 10
2026 (+8) DEPTH 109 fm 57° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	10.35	27.87	0.575
5	9.96	29.31	0.553
10	9.71	29.42	0.529
20	9.14	29.70	-----
30	9.13	29.78	0.488
50	9.30	29.93	0.478
75	9.33	30.05	0.478
100	9.28	30.22	0.464
140	9.30	30.31	0.456
190	9.32	30.52	0.450

STA 98 47° 50.0' N WEATHER 45
4 June 52 122° 39.9' W WIND NNE 6
2350 (+8) DEPTH 38 fm 53° F
South Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.25	28.03	0.641
5	12.11	28.18	0.629
10	11.79	28.68	0.610
20	10.10	29.68	0.531
30	9.44	30.27	0.463
40	9.45	30.31	-----
60	9.19	30.55	0.433

STA 99	47° 41.9' N	WEATHER 45
5 June 52	122° 45.7' W	WIND N 2
0127 (+8)	DEPTH 69 fm	54° F
Hazel Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.60	27.21	-----
5	11.65	28.07	0.546
10	11.31	28.40	0.550
20	9.23	29.88	0.394
30	8.99	30.02	0.414
50	8.86	30.13	0.401
80	8.87	30.18	0.405
110	8.98	30.24	0.404

STA 101	47° 50.0' N	WEATHER 0
5 June 52	122° 48.8' W	WIND NNW 3
0429 (+8)	DEPTH 32 fm	54° F
Head of Dabob Bay		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	15.22	25.34	0.581
5	13.28	27.17	0.685
10	11.21	28.89	0.574
20	8.32	29.87	0.383
30	8.08	29.93	0.358
40	8.10	30.00	0.345

STA 100	47° 46.6' N	WEATHER c.
5 June 52	122° 51.5' W	WIND NNW 4
0332 (+8)	DEPTH 42 fm	54° F
Quilcene Bay		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	15.50	25.22	0.630
5	14.94	26.02	0.668
10	9.63	29.43	0.458
20	8.67	29.80	0.391
30	8.47	29.95	0.377
60	8.12	30.04	0.334

STA 102	47° 44.8' N	WEATHER 0
5 June 52	122° 49.7' W	WIND NNW 3
0535 (+8)	DEPTH 105 fm	54° F
Tabook Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	14.98	25.59	0.640
5	13.74	27.06	0.610
10	10.79	28.83	0.557
20	8.78	29.84	0.406
30	8.69	30.00	0.392
50	8.47	30.02	0.375
75	8.13	30.10	0.346
100	7.98	30.17	0.322
140	8.10	30.26	0.385
180	8.10	30.28	0.330

STA 103 47° 35.6' N WEATHER 0
5 June 52 122° 58.1' W WIND NE 2
0747 (+8) DEPTH 92 fm 58° F
Tekin Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.40	26.62	0.633
5	11.72	27.78	0.585
10	10.93	28.31	0.543
20	9.11	29.86	0.441
30	8.84	29.93	0.407
50	8.31	30.02	0.378
75	8.16	30.15	0.314
100	8.24	30.22	0.298
130	8.19	30.22	0.330
160	8.15	30.25	0.359

STA 104 47° 25.1' N WEATHER c.
5 June 52 123° 07.0' W WIND N 8
0948 (+8) DEPTH 67 fm 62° F
Red Bluff

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.92	26.45	0.624
5	10.25	28.59	0.496
10	9.20	29.38	0.401
20	8.55	29.80	0.313
30	8.47	29.91	0.250
50	8.34	30.04	0.266
75	8.39	30.16	0.209
100	8.35	30.23	0.393

STA 105 47° 21.4' N WEATHER c.
5 June 52 123° 03.8' W WIND W 3
1107 (+8) DEPTH 22 fm 63° F
Tahuya River

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	13.73	24.95	0.697
5	9.71	29.06	0.380
10	8.90	29.60	0.307
20	8.64	29.88	0.284
30	8.57	29.98	0.284

STA 106 47° 23.9' N WEATHER c.
5 June 52 122° 56.0' W WIND W 4
1156 (+8) DEPTH 22 fm 64° F
Lynch Cove

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	16.47	22.13	0.670
5	9.34	29.01	0.381
10	8.93	29.57	0.220
20	8.74	29.84	0.169

STA 107	47° 35.7' N	WEATHER c.
5 June 52	122° 58.2' W	WIND W 2
1455 (+8)	DEPTH 92 fm	60° F
Tekiu Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	13.59	26.69	0.693
5	11.68	27.88	0.636
10	10.46	28.78	0.525
20	9.02	29.87	0.412
30	8.51	29.95	0.399
50	8.22	30.03	0.376
75	8.14	30.15	0.327
100	8.19	30.19	0.325
130	8.23	30.25	0.347
160	8.17	30.27	0.372

STA 109	47° 55.9' N	WEATHER c.
5 June 52	122° 38.0' W	WIND NW 8
1902 (+8)	DEPTH 63 fm	54° F
Tala Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.83	28.61	0.638
5	11.45	28.82	0.612
10	10.83	29.16	0.575
20	9.82	29.77	0.508
30	9.58	29.99	0.488
50	9.51	30.25	0.476
75	9.32	30.51	0.457
100	9.29	30.55	0.457

STA 108	47° 41.9' N	WEATHER 10
5 June 52	122° 45.7' W	WIND W 2
1648 (+8)	DEPTH 67 fm	60° F
Hazel Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.28	27.77	0.646
5	11.90	27.95	0.622
10	11.64	28.31	0.591
20	11.43	29.10	-----
30	9.57	29.78	0.427
50	8.97	30.20	0.406
80	9.11	30.34	0.398
110	9.08	30.31	0.413

STA 110	48° 00.0' N	WEATHER c.
5 June 52	122° 37.5' W	WIND NW 8
1953 (+8)	DEPTH 59 fm	53° F
Mutiny Bay		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	9.89	29.63	0.536
5	9.93	29.64	0.527
10	9.89	29.70	0.525
20	9.83	29.74	0.518
30	9.83	29.79	0.522
50	9.77	30.10	0.521
75	9.41	30.42	0.476
100	9.25	30.74	0.459

STA 111 47° 53.7' N WEATHER 10
5 June 52 122° 28.4' W WIND NW 4
2137 (+8) DEPTH 109 fm 53° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.95	25.91	0.670
5	9.87	29.37	0.540
10	9.77	29.66	-----
20	9.55	29.69	0.515
30	9.69	29.79	0.494
50	9.46	30.04	0.496
75	9.33	30.05	0.476
100	9.32	30.20	0.460
150	9.32	30.25	0.444
190	9.35	30.27	0.448

STA 112 47° 48.9' N WEATHER c.
5 June 52 122° 27.7' W WIND NW 4
2252 (+8) DEPTH 100 fm 54° F
Apple Cove Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.99	24.34	0.670
5	11.76	27.36	0.642
10	10.99	28.42	0.604
20	9.82	29.45	0.528
30	9.48	29.64	0.504
50	9.30	29.82	0.486
75	9.27	29.96	0.474
99	9.25	30.04	0.469
139	9.23	30.11	0.457
168	9.22	30.28	0.455

STA 113 47° 54.0' N WEATHER b.
6 June 52 122° 28.6' W WIND E 2
0010 (+8) DEPTH 112 fm 52° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.84	25.52	0.669
5	10.79	28.74	0.593
10	10.31	29.22	0.544
20	9.83	29.62	0.519
30	9.76	29.71	0.501
50	9.53	29.86	0.485
75	9.32	30.02	0.465
100	9.37	30.04	0.469
150	9.39	30.09	0.465
190	9.40	30.20	0.458

STA 114 47° 49.0' N WEATHER b.
6 June 52 122° 27.6' W WIND E 2
0123 (+8) DEPTH 100 fm 54° F
Apple Cove Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.89	24.52	0.583
5	11.54	27.29	-----
10	10.20	29.07	0.614
20	9.30	29.55	0.533
30	9.26	29.61	0.548
50	9.31	29.84	0.479
75	9.28	29.98	0.467
99	9.25	30.07	0.457
139	9.28	30.13	0.448
168	9.25	30.20	0.447

STA 115 47° 54.5' N WEATHER b.
6 June 52 122° 28.6' W WIND E 1
0318 (+8) DEPTH 95 fm 54° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.89	24.18	0.643
5	11.55	26.76	0.631
10	11.23	27.39	0.605
14	9.90	29.54	0.511
38	9.55	29.88	0.487
61	9.46	29.98	0.476
108	9.53	30.16	0.472
145	9.40	30.33	0.458
170	9.38	30.34	0.465

STA 117 47° 54.0' N WEATHER c.
6 June 52 122° 28.8' W WIND SE 1
0559 (+8) DEPTH 110 fm 56° F
Pt. No Point

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.85	25.28	0.649
5	10.89	27.75	0.618
10	10.00	29.20	0.524
20	9.79	29.50	0.528
30	9.31	29.64	0.493
50	9.51	29.93	0.493
75	9.32	30.14	0.474
100	9.39	30.20	0.473
145	9.40	30.25	0.472
185	9.39	30.29	0.473

STA 116 47° 48.9' N WEATHER c.
6 June 52 122° 27.8' W WIND E 1
0435 (+8) DEPTH 100 fm 53° F
Apple Cove Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.54	26.22	0.635
5	10.46	28.81	0.568
10	9.90	29.23	0.529
20	9.66	29.50	0.511
30	9.32	29.64	0.494
50	9.29	29.87	0.484
75	9.18	30.02	0.469
100	9.23	30.13	0.465
140	9.41	30.20	0.455
170	9.24	30.27	0.453

STA 118 47° 49.3' N WEATHER c.
6 June 52 122° 27.8' W WIND E 1
0723 (+8) DEPTH 96 fm 57° F
Apple Cove Pt.

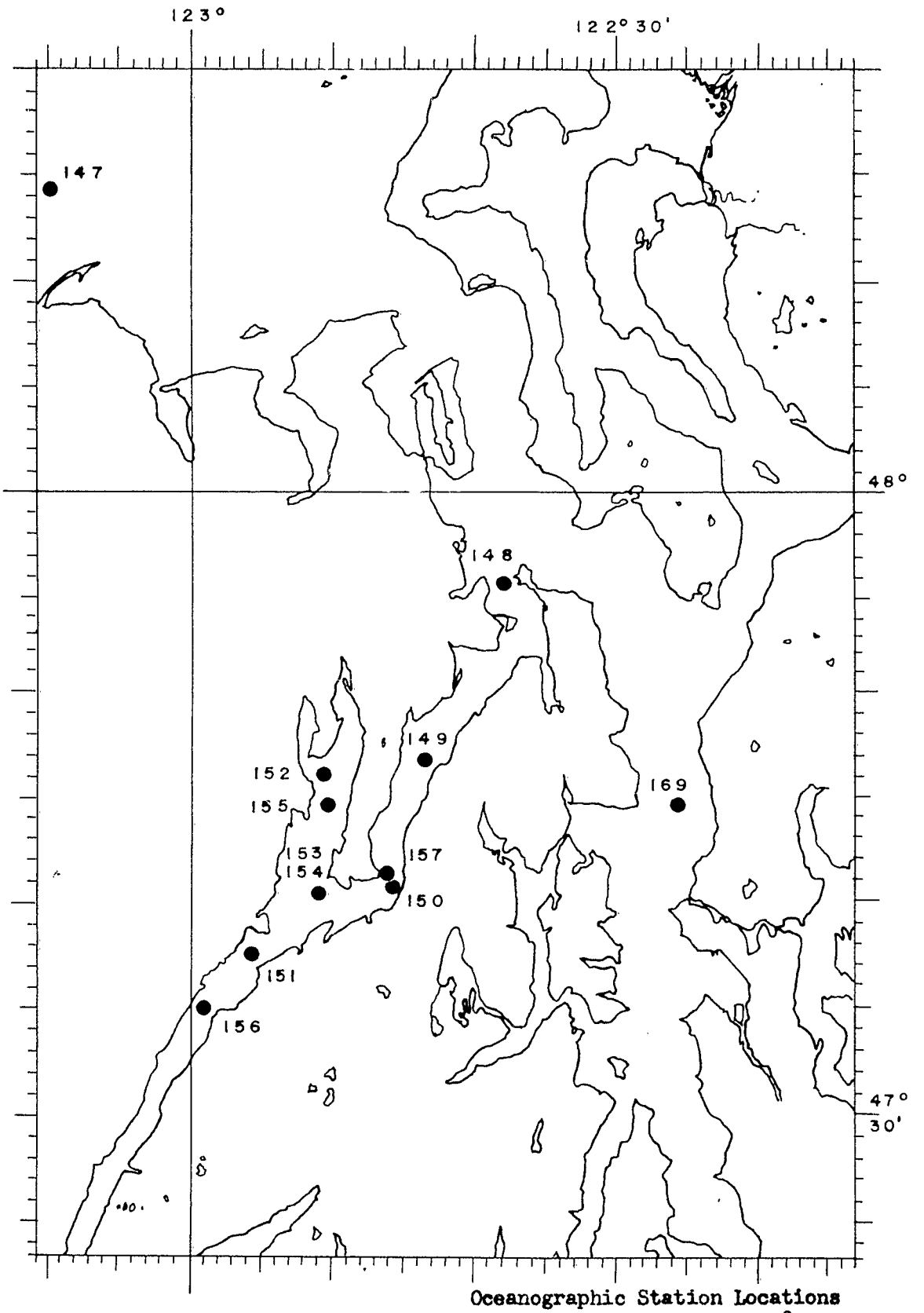
Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.46	26.56	0.633
5	10.88	26.71	0.607
10	10.06	29.30	0.545
20	9.76	29.47	0.532
30	9.41	29.70	0.507
50	9.19	29.98	0.458
75	9.18	30.09	0.455
100	9.20	30.20	0.454
140	9.23	30.28	0.499
171	9.23	30.35	0.441

STA 119	47° 45.2' N	WEATHER 51
6 June 52	122° 25.3' W	WIND S 8
0845 (+8)	DEPTH 157 fm	57° F
Pt. Jefferson		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	11.21	28.64	0.636
5	11.20	28.66	0.622
10	11.04	28.69	0.627
20	9.57	29.45	0.540
30	9.34	29.61	0.529
50	9.22	29.78	0.508
100	9.05	30.04	0.462
150	9.11	30.27	0.455
200	9.17	30.28	0.452
240	9.17	30.30	0.448
271	9.14	30.35	0.448

STA 120	47° 44.5' N	WEATHER b.c
25 June 52	122° 25.5' W	WIND S 4
0849 (+8)	DEPTH 155 fm	--° F
Pt. Jefferson		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.33	28.89	0.687
5	12.26	28.91	0.672
10	12.03	29.06	0.641
20	10.75	29.44	0.553
30	10.30	29.63	0.513
50	9.98	29.79	0.484
100	9.81	30.03	0.452
150	9.66	30.09	0.443
200	9.67	30.15	0.435
240	9.70	30.17	0.433
270	9.71	30.25	0.435



Oceanographic Station Locations
Brown Bear Cruise No. 8A
31 July-2 August 1952

STA 147	48° 14.2' N	WEATHER b.
31 July 52	123° 09.8' W	WIND SE 21
1054 (+8)	DEPTH 85 fm	--° F
New Dungeness, N.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
1	10.75	30.70	-----
25	8.93	31.74	-----
50	8.20	32.27	-----
75	8.65	32.28	-----
100	8.07	32.47	-----
145	7.31	32.99	-----

STA 149	47° 46.8' N	WEATHER b.
31 July 52	122° 43.2' W	WIND N 7
1817 (+8)	DEPTH 24 fm	--° F
Vinland		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	14.3	28.87	-----
3	----	28.96	-----
6	----	29.23	-----
9	----	29.49	-----
15	----	29.85	-----
21	----	29.92	-----
40	----	30.16	-----

STA 148	47° 55.6' N	WEATHER b.
31 July 52	122° 37.9' W	WIND NE 8
1600 (+8)	DEPTH 50 fm	86° F
Tala Point		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.87	29.79	-----
9	12.13	29.90	-----
16	11.79	30.03	-----
30	11.11	30.25	-----
45	10.85	30.32	-----
80	10.53	30.68	-----

STA 150	47° 40.6' N	WEATHER b.
31 July 52	122° 45.6' W	WIND N 5
1943 (+8)	DEPTH 50 fm	--° F
Hazel Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	16.40	27.88	-----
10	12.26	29.34	-----
15	11.66	29.54	-----
25	10.18	29.92	-----
40	9.72	30.10	-----
70	10.03	30.32	-----
90	10.08	30.35	-----

STA 151 47° 37.5' N WEATHER b.
31 July 52 122° 55.7' W WIND NE 2
2334 (+8) DEPTH 90 fm --° F
Hood Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	19.44	25.48	-----
6	13.20	28.69	-----
13	10.81	29.56	-----
31	9.76	29.92	-----
75	8.83	29.88	-----
130	8.39	29.97	-----
150	8.40	30.07	-----

STA 152 47° 46.2' N WEATHER b.
1 Aug 52 122° 50.3' W WIND 0
0144 (+8) DEPTH 92 fm --° F
Whitney Pt.

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	20.11	26.00	-----
8	12.92	29.04	-----
15	10.90	29.45	-----
25	9.78	29.78	-----
45	9.18	30.01	-----
125	8.33	30.23	-----
160	8.10	30.32	-----

STA 153 47° 40.5' N WEATHER b.
1 Aug 52 122° 50.3' W WIND 0
1404 (+8) DEPTH 50 fm --° F
Pleasant Harbor

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	19.63	25.73	-----
10	11.62	29.40	-----
25	10.00	30.01	-----
45	9.55	30.07	-----
70	9.36	30.16	-----
90	9.11	-----	-----

STA 154 47° 40.5' N WEATHER b.
2 Aug 52 122° 50.3' W WIND 0
0053 (+8) DEPTH 50 fm --° F
Pleasant Harbor

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	19.42	25.70	-----
10	11.62	29.45	-----
25	9.88	29.97	-----
45	9.60	30.07	-----
70	9.34	30.14	-----
90	9.12	30.14	-----

STA 155	47° 44.7' N	WEATHER b.
2 Aug 52	122° 50.0' W	WIND ExN 4
0319 (+8)	DEPTH 102 fm	--° F
Tabook Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	19.91	26.67	-----
7	12.22	29.23	-----
15	10.36	29.76	-----
45	9.18	29.94	-----
90	8.66	30.01	-----
175	8.13	30.30	-----

STA 157	47° 41.3' N	WEATHER 45
2 Aug 52	122° 45.8' W	WIND E 4
0650 (+8)	DEPTH 53 fm	--° F
Hazel Pt.		

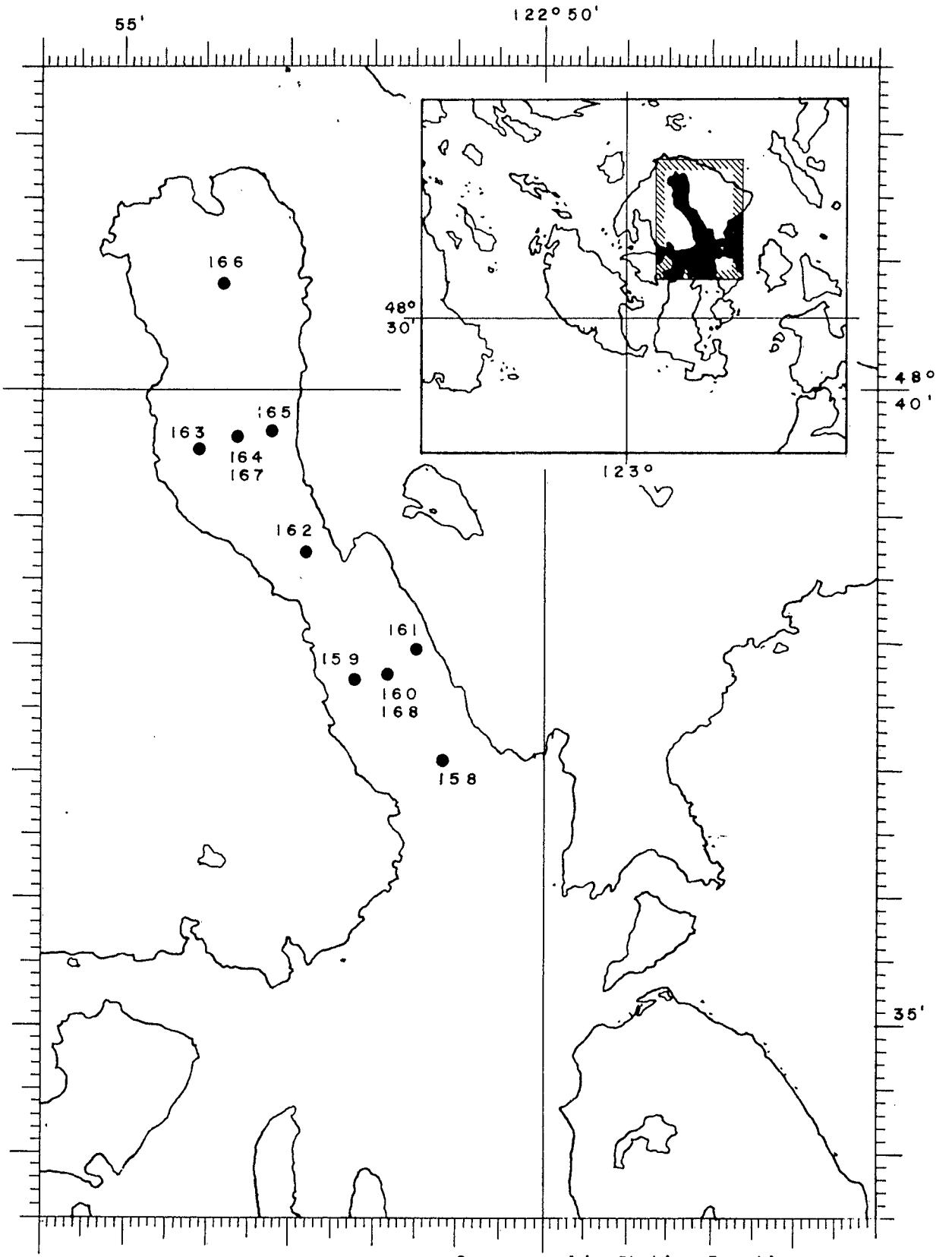
Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	15.86	27.66	-----
10	10.74	29.70	-----
15	10.69	29.70	-----
25	9.98	29.92	-----
40	9.49	30.05	-----
70	9.18	30.08	-----
90	9.04	30.07	-----

STA 156	47° 35.0' N	WEATHER b.
2 Aug 52	122° 58.8' W	WIND NE 2
0451 (+8)	DEPTH 92 fm	--° F
Hood Pt.		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	19.74	25.10	-----
10	14.11	29.43	-----
15	11.46	29.72	-----
25	9.91	29.88	-----
40	9.54	30.12	-----
70	9.08	30.12	-----
85	8.77	30.16	-----

STA 169	47° 44.5' N	WEATHER b.
15 Aug 52	122° 25.5' W	WIND NW 1
2323 (+8)	DEPTH 151 fm	--° F
Pt. Jefferson		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)
0	12.49	29.83	0.377
5	12.47	29.84	0.365
10	-----	29.91	0.359
20	11.96	29.91	0.349
30	11.82	29.91	0.339
50	11.51	30.11	0.318
75	11.30	30.23	0.310
100	11.32	30.34	0.313
150	11.26	30.44	-----
200	11.10	30.53	-----
250	10.98	30.62	-----



Oceanographic Station Locations
Brown Bear Cruise No. 8B
4-5 August 1952

STA 158 48° 37.0' N WEATHER b.
4 Aug 52 122° 50.3' W WIND NE 21
0715 (+8) DEPTH 16 fm --° F
East Sound

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	12.49	29.56	0.538	1.3
7	11.97	29.79	0.490	1.1
11	11.34	30.19	0.417	1.1
16	11.04	30.30	0.425	1.4
20	10.93	30.35	0.404	1.5
25	10.50	30.35	0.332	1.4

STA 160 48° 37.8' N WEATHER b.
4 Aug 52 122° 51.9' W WIND NW 20
1153 (+8) DEPTH 15 fm --° F
East Sound

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	12.90	28.44	0.535	---
7	12.41	28.82	0.544	---
12	12.66	29.25	0.567	---
15	12.22	29.61	0.497	---
20	11.25	29.88	0.433	---
23	10.82	29.97	0.358	---

STA 159 48° 37.7' N WEATHER b.
4 Aug 52 122° 52.3' W WIND NW 20
1038 (+8) DEPTH 14 fm --° F
East Sound

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	13.53	29.81	0.609	1.0
5	13.43	29.81	0.603	1.4
9	12.89	29.81	0.567	1.1
15	10.70	29.87	-----	---
18	10.62	30.35	0.354	1.4
23	10.62	30.37	0.380	1.4

STA 161 48° 38.0' N WEATHER b.
4 Aug 52 122° 51.5' W WIND NW 21
1315 (+8) DEPTH 14 fm --° F
East Sound

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	13.03	28.39	0.540	---
6	12.30	29.13	0.531	---
12	11.42	30.17	0.440	---
17	11.47	30.08	0.446	---
20	11.22	30.21	0.431	---
26	10.65	30.59	0.314	---

STA 162	48° 38.8' N	WEATHER b.
4 Aug 52	122° 52.9' W	WIND NW 21
1412 (+8)	DEPTH 16 fm	--° F
East Sound		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	13.23	28.98	0.569	1.2
5	13.23	29.96	0.670	1.3
10	12.22	29.83	0.558	1.0
14	11.00	30.16	0.412	1.4
17	10.72	30.17	0.382	1.5
26	10.35	30.30	0.297	1.6

STA 164	48° 39.7' N	WEATHER b.
4 Aug 52	122° 53.7' W	WIND NW 20
1555 (+8)	DEPTH 15 fm	--° F
East Sound		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	13.51	29.75	0.654	---
8	13.34	29.99	0.639	---
12	13.07	30.02	0.610	---
15	11.29	30.16	0.442	---
18	10.48	30.22	0.376	---
25	10.43	30.40	0.328	---

STA 163	48° 39.6' N	WEATHER b.
4 Aug 52	122° 51.1' W	WIND NW 20
1520 (+8)	DEPTH 13 fm	--° F
East Sound		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	14.05	29.97	0.676	0.9
3	13.65	29.94	0.662	0.9
8	12.73	29.94	0.622	0.8
9	12.58	29.90	0.604	0.8
15	10.39	30.19	0.355	1.8
24	10.40	30.32	0.310	2.2

STA 165	48° 39.7' N	WEATHER b.
4 Aug 52	122° 53.3' W	WIND NW 15
1655 (+8)	DEPTH 14 fm	--° F
East Sound		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	13.05	29.05	0.607	---
3	12.61	29.07	0.610	---
8	13.23	29.97	0.589	---
12	12.12	30.16	0.559	---
18	11.94	30.16	0.517	---
25	10.66	30.33	0.378	---

STA 166	48° 40.9' N	WEATHER b.
4 Aug 52	122° 54.0' W	WIND NW 15
1750 (+8)	DEPTH 13 fm	--° F
East Sound		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	13.81	30.03	0.685	0.9
3	13.80	29.99	-----	0.8
8	12.76	29.99	0.655	0.8
15	12.03	29.97	0.549	0.8
18	11.37	30.16	0.484	1.2
25	10.51	30.35	0.328	2.1

STA 168	48° 37.9' N	WEATHER b.
5 Aug 52	122° 51.9' W	WIND SE 10
1504 (+8)	DEPTH 15 fm	--° F
East Sound		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	12.79	28.84	-----	---
15	12.15	29.35	-----	---
26	10.60	30.28	-----	---

STA 167	48° 39.7' N	WEATHER b.
5 Aug 52	122° 53.7' W	WIND SE 10
1350 (+8)	DEPTH 15 fm	--° F
East Sound		

Depth (m)	Temp (°C)	Sal (°/oo)	O_2 (mg-at/L)	PO_4 (µg-at/L)
0	13.18	29.11	-----	---
12	13.39	29.55	-----	---
25	10.43	30.28	-----	---

Department of Oceanography
University of Washington
Technical Report Distribution List

2 Geophysics Branch, (Code 416)
Office of Naval Research
Washington 25, D.C.

6 Director, Naval Research Laboratory
Attention: Technical Information Officer
Washington 25, D.C.

2 Officer-in-Charge
Office of Naval Research
London Branch Office
Navy #100, Fleet Post Office
New York, New York

1 Office of Naval Research Branch Office
346 Broadway
New York 13, New York

1 Office of Naval Research Branch Office
Tenth Floor, The John Crerar Library Building
86 East Randolph Street
Chicago, Illinois

1 Office of Naval Research Branch Office
1030 East Green Street
Pasadena 1, California

1 Office of Naval Research Branch Office
1000 Geary Street
San Francisco, California

1 Office of Technical Services
Department of Commerce
Washington 25, D.C.

5 Armed Services Technical Information Center
Documents Service Center
Knott Building
Dayton 2, Ohio

1 Assistant Secretary of Defense for Research & Development
Attention: Committee on Geophysics and Geography
Pentagon Building
Washington 25, D.C.

1 Office of Naval Research Resident Representative
University of Washington
Seattle 5, Washington

2 Assistant Naval Attache for Research
American Embassy
Navy #100, Fleet Post Office
New York, New York

2 Chief, Bureau of Ships
Navy Department
Washington 25, D.C.
Attention: (Code 847)

1 Commander, Naval Ordnance Laboratory
White Oak
Silver Spring 19, Maryland

1 Commanding General, Research and Development Division
Department of the Air Force
Washington 25, D.C.

1 Chief of Naval Research
Navy Department
Washington 25, D.C.
Attention: (Code 466)

8 U.S. Navy Hydrographic Office
Washington 25, D.C.
Attention: Division of Oceanography

2 Director, U.S. Navy Electronics Laboratory
San Diego 52, California
Attention: (Codes 550, 552)

1 Chief, Bureau of Yards and Docks
Navy Department
Washington 25, D.C.

1 Commanding General, Research and Development Division
Department of the Army
Washington 25, D.C.

1 Commanding Officer, Cambridge Field Station
230 Albany Street
Cambridge 39, Massachusetts
Attention: CRHSL

1 National Research Council
2101 Constitution Avenue
Washington 25, D.C.
Attention: Committee on Undersea Warfare

1 Project Arowa
U.S. Naval Air Station
Building R-48
Norfolk, Virginia

1 Department of Aerology
U.S. Naval Post Graduate School
Monterey, California

1 Chief of Naval Operations
Navy Department
Washington 25, D.C.
Attention: Op-533D

1 Commandant (OAO), U.S. Coast Guard
Washington 25, D.C.

1 Director, U.S. Coast & Geodetic Survey
Department of Commerce
Washington 25, D.C.

1 Department of Engineering
University of California
Berkeley, California

1 The Oceanographic Institute
Florida State University
Tallahassee, Florida

1 U.S. Fish & Wildlife Service
P.O. Box 3830
Honolulu, T. H.

1 U.S. Fish & Wildlife Service
Woods Hole, Massachusetts

2 Director, Woods Hole Oceanographic Institution
Woods Hole, Massachusetts

1 Director, Chesapeake Bay Institute
Box 4264, RFD #2
Annapolis, Maryland

1 Director, Narragansett Marine Laboratory
Kingston, R. I.

1 Head, Department of Oceanography
University of Washington
Seattle, Washington

1 Bingham Oceanographic Foundation
Yale University
New Haven, Connecticut

1 Department of Conservation
Cornell University
Ithaca, New York
Attention: Dr. J. Ayers

1 Director, Lamont Geological Observatory
Torrey Cliff
Palisades, New York

2 Director, U.S. Fish & Wildlife Service
Department of the Interior
Washington 25, D.C.
Attention: Dr. L. A. Walford

1 U.S. Army Beach Erosion Board
5201 Little Falls Road N. W.
Washington 16, D.C.

1 Allen Hancock Foundation
University of Southern California
Los Angeles 7, California

1 U.S. Fish & Wildlife Service
Fort Crockett
Galveston, Texas

1 U.S. Fish & Wildlife Service
450 B Jordan Hall
Stanford University
Stanford, California

2 Director, Scripps Institution of Oceanography
La Jolla, California

1 Director, Hawaii Marine Laboratory
University of Hawaii
Honolulu, T. H.

1 Director, Marine Laboratory
University of Miami
Coral Gables, Florida

1 Head, Department of Oceanography
Texas A & M College
College Station, Texas

1 Head, Department of Oceanography
Brown University
Providence, Rhode Island

1 Department of Zoology
Rutgers University
New Brunswick, New Jersey
Attention: Dr. H. K. Haskins

1 Dr. Willard J. Pierson
New York University
New York, New York

1 Librarian
California Fisheries Laboratory
Terminal Island Station
San Pedro, California